REMARKS

The Office has rejected claims 15, 16, 30, 35, 36, 41-48 and 52-56 under 35 U.S.C. § 103.

Claims 41-45 and 56 have been cancelled and claim 57 added to more clearly focus on the present invention.

The rejection was based principally on Kunz (6,295,776) in view of Weldy (Re 34,547) and Hoffmann Sr. (6,684,586) and to some extent on Ritchie.

Preliminarily, it should be noted that to make the rejections in this case, the Office argued that Kunz shows a drywall trim device including a relatively rigid elongated core 12, pair of flanges 16 and a paper cover core to form flexible flaps formed with perforations. The Office conceded that Kunz does not show a flap having elongated grooves and ridges on the inward surface but argues that Weldy shows ridges and grooves formed by striations for assisting in anchoring onto the drywall. The Office further argues that Hoffmann shows grooves between ridges 18 on the inward surface for anchoring a joint compound on the drywall joint.

The Office cites no combination of rigid core and paper flaps with grooves and ridges on the inner surface comparable to Applicant's claimed paper flaps with anchoring ridges.

In its initial rejection, the Office is wrong on three counts. First, Kunz's objective in his '776 is to provide a tape-on corner bead which will firmly bond to the drywall construction, "as well as the joint cement applied **over the top** thereof" (Col. 2, ll. 39-41) and specifies that "The selection of the paper of paper strip 20 is **critical** to the invention." (See Col. 3, ll. 65-66).

Second, Weldy specifically specifies that his striations be on the exterior surface for adhering paint or the like.

Third, Hoffmann is directed to a flat strip of polymer material that can be rolled up in a roll and that for installation can be bent in a perpendicular configuration shown in Fig. 3.

He makes no suggestion that his disclosed knurls 18 with rounded cross section could be formed in paper or would be adequate to, upon embedding in joint compound, mount a tape-on combination metal and paper bead to a drywall joint.

Kunz specifies that his corner bead includes an elongated galvanized steel strip 12 and the critical paper strip 20 impregnated with latex and formed with abraded surfaces. Kunz is less than explicit about the extent of abrading or how it facilitates bonding other than to state that his strip is abraded to partially loosen the surface fibers which will "increase the bond strength of the corner bead when installed on wallboard [sic]" (See Abstract).

Whether the abrasion to loosen fibers is to enhance bonding of the paper to the galvanized strip or is intended to somehow enhance bonding to the joint compound, one thing is clear, Kunz specified that the "joint cement 28 [is] applied to the exterior surface thereof." (See col. 4, ll. 54-55) (See Fig. 2). Thus, to the extent, Kunz teaches bonding to joint compound, he relies on the abrading of the exterior surface of his paper to enhance the bonding and makes no mention of knurling his paper strip or even suggests his abraded paper would take a set necessary to maintain ridges on the order of $1/64^{th}$ inches high on the under surface for embedding in the compound on the drywall surface.

Weldy teaches against the use of metal cores, stating that metal has "a very poor memory, and is subject to being dented or wrinkled, after which is difficult to straighten to produce a smooth finish" (See col. 1, ll. 38-40) and that by contrast, his plastic strip is designed to "be easily extruded".

Weldy, while teaching against the use of metal strips, adopts Kunz' approach of treating the exterior surface of his flange as by "either striated externally to help the mud adhere thereto, or provided with punched-out holes periodically along the flanges, or both." (See col. 2, ll. 29-32). He then provides for application of a primer to help adhere the joint material.

Referring to column 3, lines 27-30 he states:

> "Once the strip has been secured in place with nails as shown in Fig. 2, the drywall mud 22 is applied over the nail heads and over the joint between the strip and the adjoining drywall."
>
> "First, the flanges can be striated as shown at 24 on their outer surface which will face outwardly when secured over and inner or outer wall intersection, as illustrated in the drawings. These striations, much like record grooves, will engage and hold the mud." (col. 3, ll. 34-39)

Weldy focuses on improvements to prior art plastic core tape-on beads and notes failed efforts by others to enhance bonding for plastic strips referring to U.S. Patent No. 4,418,027 for a PVC tape in which the ability of the tape to adhere to taping compound is enhanced by gluing cotton or synthetic fibers to the surface of the PVC tape. (See col. 1, ll. 25-27). He further denigrates rigid beads noting that prior art products extruded from vinyl "are not intended to be flexible enough to ship in flattened and rolled form." (See col. 1, ll. 40-42) and notes the same shortcomings of incorporating galvanized steel material formed at a 90° angle. (See col. 2, ll. 21-28).

Hoffmann is not directed to a rigid a core and paper construction but rather directs his efforts to improvements in plastic beads selecting a filled polyolefin composition which is a silicate mineral. He forms his polyolefin composition strip with a longitudinal central crease 12 which allows the strip to be flattened out as shown in Fig. 4 or bent to a 90° corner as shown in Figs. 3 and 6. It is correctly noted by the Office that Hoffmann forms his plastic device with knurls 18 which he describes as giving the inside surface a rough surface which enhances the ability of the strip to adhere well to the drywall sheet which has been sprayed with an adhesive. He notes that if an adhesive is not used, the depressions 14 on the outside of the strip improve adhesion of the drywall compound to the outside of the strip. Nowhere does he suggest anchoring paper ridges on the inner surface.

As shown in Fig. 5, Hoffmann specifically spaces his knurls 18 from the perforations 14 and constructs his knurls 14 with a rounded semi-circular lateral cross section. There is no showing in the record that such a rounded cross section can be made in paper flaps or that such a rounded cross section would be effective in paper flaps to enhance attachment to joint compound between the flaps and the drywall surface. An artisan following King's teachings, would find no suggestion in Hoffmann for deforming paper flaps to anchoring ridges or to position perforations in close spaced relation in the ridges.

From the above, it is clear that the Office has misread the references of record. Before Applicant's inventions, artisans did not generally rely on joint compound on the undersurface of knurled paper flaps to adhere the flaps and associated metal cores to drywall joints. Kunz, while addressing the abrading of paper cover strips, failed to disclose deformation of the body of the flaps themselves to enhance bonding.

The original application for Weldy, U.S. Patent No. 5,086,598 was filed in 1989 and issued in 1992 some six years prior to the time Kunz filed his patent application. Yet, Kunz could not see to incorporate the striations of Weldy, whether on the interior or exterior of the reduced in cross section wings section.

In fact, Kunz did not turn his attention to the underside of his wings 22 and 24 until September 2001 when he filed his application for his U.S. Patent No. 6,539,680. It was then that he first disclosed the construction of his wings of paper having dimples with initial raised height of approximately 0.007 to 0.014 inches and with a layer of joint cement 30 applied to the wallboard under the wings 22 and 24 as described in his '680 patent, (See col. 4, ll. 6-23) and shown at Fig. 3.

Phillips Manufacturing, assignee of the Kunz patent, is an old and established substantial manufacturer www.phillipsmfg.com. Had it been obvious for inventor Kunz or his compatriots at Phillips Manufacturing to construct a combination core and paper covering bead with ridges under the wings to embed in joint compound under such wings, would not he have disclosed that construction at the time his '776 patent application was filed in 2000?

In both of his patents, Kunz was working with laminated construction to provide core and paper beads. Weldy and Hoffmann were both concerned with unitary plastic construction as an improvement over steel and paper. Thus, each artisan was seeking different objectives and was working with different parameters. Kunz with the more traditional core and cover construction, Weldy to eliminate metal and to provide exterior striations to enhance bonding of paint to the exterior and Hoffmann to improve on the prior art PVC construction to provide for a role up strip for transportation.

Thus, an artisan following the teachings of Kunz '776 would believe his particular paper strip "was critical" to his invention and, would be discouraged from looking to unitary plastic beads for solutions to a problem with hanging his bead from a drywall joint.

The artisan would be further discouraged from looking to Weldy for solutions because of the fact that Weldy was perfectly satisfied with nailing his bead to the drywall, the very shortcoming Kunz was seeking to overcome.

Even if Kunz had been abrading his wings for enhancing bonding, there is no evidence that he sought to abrade and utilize the underside of the wing for enhancing the bonding to joint compound. Thus, Weldy is not helpful in suggesting such a solution to the underside. Rather, Weldy, incorporating the tiny grooves defining the striations on the top surface of his plastic flanges locates them in the wrong place and orientation and does nothing to suggest grooves and ridges of a magnitude sufficient to enhance the under surface. In fact, Weldy incorporates holes 26 to permit "mud to ooze through the strip and bond directly to the drywall", at a location where there are no striations. (See col. 2, ll. 48-50).

An artisan familiar with and following the teachings of Kunz '776 would be familiar with and prefer and orthogonal metal core covered by a paper strip abraded on at least one side and typically of sufficiently rigid construction so that the formed bead could be placed up against a joint without additional manipulation of the flanges of the core. He or she would be influenced to incorporate joint compound 28 on the external surface in a sufficiently thick layer to fair in with the surface of the semi-circular rib 20 at the corner.

An artisan following these teachings would not likely look to the unitary polyethylene strip of Hoffmann which is of flat flexible construction to be rolled up in a roll 10. Even if such an artisan were to be made aware of Hoffmann, he or she would be discouraged by the proposition that Hoffmann utilizes polypropylene which benefits from Corona treatment as referred to in the middle of column 4 and relies on adhesive under the surface of the strip. Kunz seeks to eliminate the nailing of Weldy and the adhesives of Hoffmann and employs relatively inexpensive paper and does not suggest reversing joint compound to the other side or creasing paper to form the grooves and ridges on the side opposite that on which he is relying for application of the joint compound.

Claim 16 includes the limitations that the flaps are formed with elongated grooves and ridges to provide linear stiffness for the paper flaps and that the flaps are formed along the exterior grooves with perforations extending through the flaps for communication of joint compound during installation.

The Office rejection based on Kunz, Weldy and Hoffmann is not supported by the record. The Office concedes that in Weldy the striations are in the outer surface to adhere paint or mud it is noted and the holes 26 are not formed in grooves which are of sufficient lead joint compound therein to.

Hoffmann specifically spaces his perforations from his knurls, knurls which are undeniably not formed in paper flaps.

Thus, without referring to Applicant's disclosure there is no suggestion in the art of how Kunz, Weldy and Hoffmann would be combined to anticipate claim 16.

Claim 30 has been amended to change the term "ribs" to "ridges", it being understood that such amendment merely specify that which would already have been apparent to one skilled in the art from the original text.

No obvious combination of Kunz, Weldy and Hoffmann would anticipate claim 30. This claim includes the limitations the paper flaps are formed on their inner surface with four parallel elongated grooves defining ridges and spaced apart $1/8^{th}$ of an inch and $1/64^{th}$ of an inch high and further formed with perforation spaced equidistance along the ridges.

Hoffmann adds nothing to Kunz which would suggest that perforations located in the ridges would enhance anchoring of paper flaps. In fact, Hoffmann specifically spaces his perforations from his rounded knurls. The Office does not even suggest that Weldy shows ridges on the inside surface of flap of any kind let alone a paper flap. The Offices contention of obviousness is not supported by the record.

Claims 35 and 36 depend from claim 16 and are further limited from the paper being constructed of fibers and strengthening compound mixed at the time of manufacture.

The rejection based on the contention that the claim combination would have been obvious over Ritchie in view of Weldy and Hoffmann is unsupported. Ritchie is concerned about the finished aspect of the exterior of a bead when the "spackle or joint cement spread from the wall surface onto the corner bead is sanded to provide a smooth continuous surface from the wall board to the corner bead" ... wherein .... "the exposed portion of the outer paper layer is commonly scuffed during sanding operation..." (col. 1, ll. 53-60).

He seeks to provide a partial solution to this problem by applying a protective center band 16 over the rounded corner 10a (Fig. 2) to provide protection only where the joint compound is faired in with the rounded corner and at 17 (Fig. 4) to provide protection in the shoulder area.

There is no showing or suggestion in Ritchie of going to the expense of providing for reinforcement of the entire strip at the time of manufacture to thus achieve the benefits of encapsulating the fibers throughout the thickness of the paper flaps to enhance strength and endurance of the entire product. In fact, Ritchie forms no reinforcement in his flaps 12a so, even if combined as suggested by the Office, the claimed invention and results would not be achieved.

The Office's rejection of claims 46 – 48 on Ritchie, Weldy and Hoffmann are not supported by the record. Claim 46 is directed to a method of making a drywall joint protection strip including the selection of a core, paper cover, bonding to the core and forming alternating elongated ridges on the inwardly facing surface of the flap to confront a surface along the marginal edge of a drywall panel joint to, upon installation, be imbedded in joint compound. Ritchie is not concerned with permanently deforming a paper cover and, in fact, relies on reinforced Kraft paper backing strips 15 (Fig. 3) and turned back marginal edges 13a for anchoring of the bead in place.

There is no suggestion of adopting striations for Ritchie. Even if the striations of Weldy were adopted, they would be on the wrong side of the paper flaps. Moreover, Hoffmann does not rely on paper covering and there is no suggestion of eliminating the objective of his patent seeking to benefit from filled polyolefin silicate mineral in his polypropylene to enhance the use of adhesives. The Office has been unable to point to any suggestion of making the modifications to anticipate Applicant's claimed steps.

Claims 47 and 48 depend from claim 46 and include the restrictions that the fiber elements include, respectively, (a) that papers made from fiber elements mixed with strengthening compound at the time of manufacturing and (b) that the grooves are of sufficient size and configuration in the outer surface to form perforations through the grooves for receipt of joint compound. The striations in Weldy are so tiny that there is no suggestion that they would be beneficial in forming ridges to embed in compound on the interior surfaces and his large perforations are not located in grooves.

Claims 52, 53 and 55 were rejected on Kunz in view of Hoffmann. Claim 52 recites the relative rigid core, flexible cover strip with the inner sides of the cover strip flaps being formed with alternating longitudinal flap grooves and ridges to be embedded in compound inner posed between the drywall panels and the flaps. Kunz relies on compound on the exterior of his claims.

Hoffmann is directed to a rollup construction and specifies a filled polyolefin mixture and specifically shows semi-circular knurls spaced some distance apart. There is no suggestion that the knurls of Hoffmann, even if incorporated in Kunz would provide for anchoring in the compound. In any event, there is no suggestion of substituting the highly flexible Hoffmann-integrated core for the relatively rigid core of Kunz. Thus, the rejection is not supported by the record. Claims 53, 54 and 55 all depend from either directly or indirectly from claim 52 and include further limitations directed to the particular configuration of the ridges and grooves which enhance anchoring on the interior side of paper flaps.

Claim 57 has been added to focus on the close spaced relationship of the ridges and grooves in Applicant's flaps for enhancing anchoring of the paper flaps. This configuration is contrary to the teachings of Kunz, Ritchie, Hoffmann and Weldy or any suggested combination thereof.

Support for this claim is found throughout the specification and, in particular, on page 13, lines 4-8.

In summary, none of the references of record either individually or in combination show or suggest Applicant's claim construction including the metal core with paper covering and flaps including grooves and ridges constructed for embedding in joint compound on the underside. Applicant was the first to provide such a bead, one that has become particularly popular in the marketplace. It is believed that the claims in this case patentably distinguish on the prior art and early notice of allowance is respectfully solicited.

Respectfully submitted,

FULWIDER PATTON LLP

By: _____
Vern Schooley
Registration No. 24,649

VS:rmk
200 Oceangate, Suite 1550
Long Beach, CA 90802
Telephone: (562) 432-0453
Facsimile: (562) 435-6014
Customer No. 27629